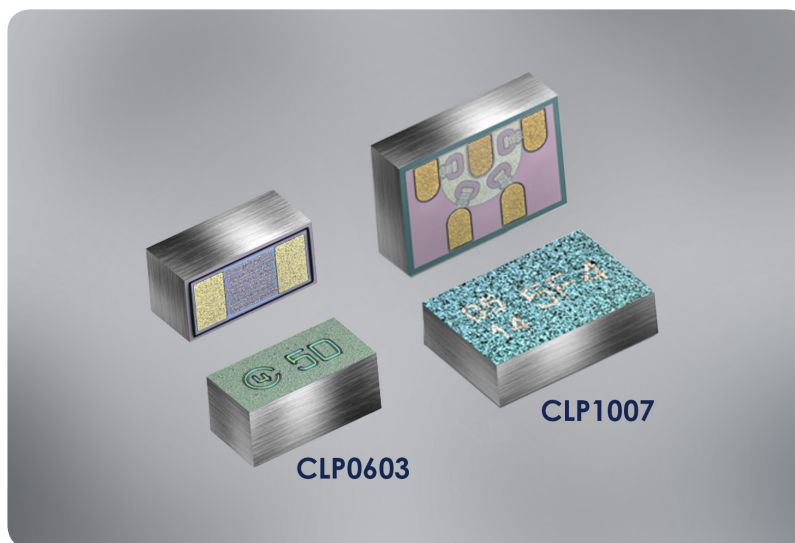




Single-Line and 4-Line ESD Protection Diodes in Ultra Compact Chip Level Packages (CLP)



KEY BENEFITS

- ESD protection diodes in the ultra compact chip level package (CLP) series
 - CLP0603 package features a low profile of 0.28 mm
 - CLP1007-5L package measures 1.0 mm x 0.7 mm with low profile height of 0.27 mm
- Working range: ± 3.3 V to ± 10 V
- Low leakage current: < 0.1 μ A
- ESD protection according to IEC 61000-4-2
 - ± 15 kV up to ± 30 kV
- Operating temperature range of -55 °C to $+150$ °C
- RoHS-compliant and halogen-free

APPLICATIONS

- ESD protection of high speed interfaces in smartphones, digital cameras, and gaming systems

RESOURCES

- Datasheets: please see next page for the list of products
- For technical questions contact DiodesAmericas@vishay.com, DiodesEurope@vishay.com, DiodesAsia@vishay.com
- Material categorization: for definitions of compliance, please see www.vishay.com/99912





DIODES

ESD Protection Diodes in CLP Series

Single-Line and 4-Line ESD Protection Diodes in Ultra Compact Chip Level Packages (CLP)

Cut the spikes! Vishay's single-line and 4-line ESD protection devices clamp positive and negative overvoltage transients to ground. Connected between the signal or data line and the ground, these devices offer high isolation (low leakage current, low capacitance) within the specified working range. Due to the short leads and small size of the ultra compact CLP series packages, the line inductance is very low so that fast transients like an ESD strike can be clamped with minimal over- or undershoots. In addition, the ultra compact CLP1007-5L package utilizes 70 % less board space than previous-generation solutions without sacrificing performance.

ESD PROTECTION DIODES IN CLP SERIES

VISHAY PART NUMBER	V_{RWM} (V)		I_R (μ A)	C_D (pF)	CONTACT DISCHARGE ⁽¹⁾ (kV)	AIR DISCHARGE ⁽¹⁾ (kV)
	UNI- DIRECTIONAL	BI- DIRECTIONAL				
VBUS03B1-SD0	-	± 3.3	< 0.05	0.29 typ.	± 16	± 16
VBUS05B1-SD0	-	± 5.5	< 0.05	0.29 typ.	± 16	± 16
VBUS54FD-SD1	-	± 5.5	< 0.1	0.9 typ.	± 15	± 15
VCUT03E1-SD0	-	± 3.3	< 0.1	< 14	± 30	± 30
VCUT05E1-SD0	5.5	-	< 0.1	< 14	± 30	± 30
VCUT10A1-S1D0	-	± 10	< 0.1	< 9	± 24	± 24

Note

⁽¹⁾ According to IEC 61000-4-2